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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,904	10/02/2003	Wolf-Dieter Schmidt	71105	9562

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EXAMINER	
JEFFERY, JOHN A	
ART UNIT	**PAPER NUMBER**
3742	

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
10/677,904	SCHMIDT, WOLF-DIETER
Examiner	**Art Unit**
John A. Jeffery	3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2004*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-21* is/are pending in the application.
4a) Of the above claim(s) *7* is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *2-6 and 8-21* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *02 October 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☒ All b)☐ Some * c)☐ None of:
1.☒ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20031002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of Elected Claims Without Traverse

Applicant's election of Group II comprising (1) claims 8-11, (2) amended claims 2-6, and (3) newly-added claims 12-21 without traverse is acknowledged. Accordingly, claim 7 is withdrawn from consideration as being directed to a nonelected invention.

Disclosure Objections

The disclosure is objected to because of the following informalities:

Para. 0010: The term "PCT" must be changed to "PTC."

Paras. 0006, 0009, 0014, 0020: An ambiguity exists with respect to the description of the temperature-dependent resistors and their relationship to the heating wires. In Para. 0006, for example, the specification states that the "[t]emperature-dependent electric resistors are arranged in the heating wires." (emphasis added.) However, as best understood by the examiner after carefully reviewing the disclosure, the temperature-dependent electric resistors (i.e., PTC resistors 3 in Fig. 1) appear to be electrically connected to the heating wires -- not disposed "in" the heating wires as disclosed.

In view of this ambiguity, all occurrences of the temperature-dependent resistors as being "in" the heating wires throughout the disclosure must be changed to "electrically connected to" for clarity.[1]

Para. 0020: Each respective paragraph within Para. 0020 must be assigned a paragraph number.

Appropriate correction is required.

Drawing Objections

The drawings are objected to because of the following informalities:

To cure the ambiguity noted above regarding the electrical relationship between the temperature-dependent resistors and the heating wires, applicant must add an electronic schematic diagram as a new figure showing how such components are electrically connected. Specifically, the schematic diagram must show whether the temperature-dependent resistors are electrically in series or parallel with the heating wires.

A good example of an acceptable electronic schematic diagram can be found in Fig. 1 of DE3717574, hereby made of record. Note the series connection of electric heating wires 2-7 with PTC resistors (PCT_2-PCT_7 -- *sic* PTC_2-PTC_7) respectively.

Applicant is reminded to amend the specification accordingly in conjunction with the drawing change. Applicant is cautioned against the inclusion of new matter.

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[1] Also, an additional figure including an electronic schematic diagram is necessary to clearly show the electrical relationship between the temperature-dependent resistors and the heating wires. See the "Drawing Objections" section of this office action.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 3, 4, 9, 10, 14, 16, 18, 19, and 21 are objected to because of the following informalities:

In claims 9 and 10, the comma between "claim" and "8" must be deleted. Appropriate correction is required.

In claim 14, "resistor" must be changed to "resistors."

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 4, 10, 13, 14, 16, 18, 19, and 21 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. The test for definiteness under 35 U.S.C. § 112, second paragraph is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986).

As noted above, an ambiguity exists regarding the electrical relationship of the heating wires and the temperature-dependent electrical resistors. The claims recite that the "[t]emperature-dependent electric resistors are arranged in the heating wires." (emphasis added.) However, the examiner presumes for examination purposes that the temperature-dependent electric resistors (i.e., PTC resistors 3 in Fig. 1) are electrically connected to the heating wires -- not disposed "in" the heating wires.

In view of this ambiguity, all occurrences of the temperature-dependent resistors as being "in" the heating wires throughout the claims must be changed to "electrically connected to" for clarity.

Claim Rejections - 35 U.S.C. § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 5, 6, 8, 9, 11, 12, 15, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmon et al (US 6,673,007) in view of Beatenbough (US 5,778,689) and further in view of CA2079947. Salmon et al (US 6,673,007) discloses an infant incubator comprising electric heating elements 202 and 408 that warm an infant placed therein. The heating elements are temperature controlled. See Fig. 1, col. 3, lines 42-56, and col. 4, lines 18-49. Also, the humidity within the incubator can be controlled. Col. 4, lines 44-47. According to col. 4, lines 39-44, under humidification conditions, the radiant element in the cover prevents condensation thereon and its subsequent problems.

The claims differ from Salmon et al (US 6,673,007) in calling for regulating the temperature by (1) sending measured values to a control unit and forming a value for the dew point temperature, and (2) regulating the temperature to a temperature above the dew point temperature.

But automatically controlling electric heaters for heated transparencies in accordance with a calculated dew point temperature determined from measured values of temperature and humidity within a closed area is well known in the art. Beatenbough

(US 5,778,689), for example, discloses an electrically heated transparency 14' and heater wires 18 that are controlled by control device C. As noted in col. 3, lines 45-50 and col. 4, lines 36-42, room temperature and humidity detected by sensors 40 and 46 are furnished to the control panel 32 to calculate a dew point temperature. The heaters are then controlled to be at least 2 degrees above the dew point. Col. 4, lines 7-11. See also col. 1, lines 55-65. By controlling the heaters in accordance with the calculated dew point, such an arrangement more accurately determines the necessary heater energization time to clear the transparency of condensation, thus increasing energy efficiency. See col. 1, lines 5-28.

In view of Beatenbough (US 5,778,689), and further noting the express teaching of Salmon et al (US 6,673,007) in col. 4, lines 40-44 of the desirability of preventing condensation on the incubator transparency, it would have been obvious to one of ordinary skill in the art to utilize a heated transparency temperature regulation method for the transparent incubator heater of Salmon et al (US 6,673,007) so that the heaters are controlled in accordance with the dew point. Such a control scheme more accurately determines the necessary heater energization time to clear the transparency of condensation, thus increasing energy efficiency.

The claims also differ from the previously cited prior art in calling for providing heating wires traversing the hood. Mounting heating wires in a transparent incubator hood, however, is well known in the art. CA2079947, for example, discloses providing a plurality of electric heating wires 7 that traverse the transparent hood B. See Page 6, line 26 - Page 7, line 24. As noted on Page 7, lines 20-24, such an arrangement ensures a constant temperature and uniform heating throughout the incubator's interior space. In view of CA2079947, it would have been obvious to one of ordinary skill in the art to provide heating wires that traverse the hood in lieu of the heaters of the previously described apparatus to utilize an electric heating arrangement that more uniformly heats the interior of the incubator.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salmon et al (US 6,673,007) in view of Beatenbough (US 5,778,689), CA2079947, and further in view of Egle et al (US 2,813,960). The claim differs from the previously cited prior art in calling for the heating wires to be connected in parallel. Connecting multiple heating wires in parallel in a heated transparency, however, is well known in the art. Egle et al (US 2,813,960), for example, discloses in Figs. 8 and 9 connecting heating wires 2 electrically in parallel to current supply wires 2a in a glass panel. Not only does such a connection ensure the same voltage is applied across each heating wire, it also provides a convenient way to apply power to multiple heating elements using a single pair of supply wires or bus bars common to all heating elements.

In view of Egle et al (US 2,813,960), it would have been obvious to one of ordinary skill in the art to connect the electric heating wires in parallel in the previously described apparatus to (1) apply the same voltage across each heating wire thus ensuring uniform heating, and (2) conveniently apply power to multiple heating elements using a single pair of supply wires common to all heating elements, thus reducing apparatus parts.

Claims 3, 4, 10, 13, 14, 16, 18, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmon et al (US 6,673,007) in view of Beatenbough (US 5,778,689), CA2079947, and further in view of DE3717574. The claims differ from the previously cited prior art in calling for providing temperature-dependent resistors "in" (i.e., electrically connected to) the heating wires. But connecting a PTC resistor in series with an associated electric heating wire in an electrically heated transparency is well known in the art. DE3717574, for example, discloses connecting electric heating wires 2-7 in series with PTC resistors (PCT_2-PCT_7 -- *sic* PTC_2-PTC_7) respectively in a heated transparency (e.g., windows, mirrors, etc.). See Fig. 1 and abstract. In view of the temperature-responsive, self-regulating characteristics of PTC resistors, such an arrangement enables the heaters to be self-regulating responsive to temperature detected by the resistors, thus precluding the need for complex and expensive electronic temperature control systems.

In view of DE3717574, it would have been obvious to one of ordinary skill in the art to serially connect PTC resistors with the heating wires of the previously described apparatus to self-regulate the heaters responsive to temperature, thus precluding the need for complex and expensive electronic temperature control systems.

Other Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should (1) separately consider the art, and (2) consider the art together with the previously cited prior art for potential applicability under 35 U.S.C. §§ 102 or 103 when responding to this action.

US 083, US 253, US 997, US 570, US 590, US 467 disclose infant warmers relevant to the instant invention. GB 439 (see P. 4), US 666, US 989, US 876, JP 935 disclose electric transparency heaters that maintain the transparency above the dew point to prevent condensation. CA 006 discloses forming PTC resistors 110 in series with associated electric heating elements 102 in a heated transparency. See Fig. 2 and Pages 10-11.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Jeffery whose telephone number is (571) 272-4781. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans, can be reached on (571) 272-4777. All faxes should be sent to the centralized fax number at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John a. Jeffery

JOHN A. JEFFERY
PRIMARY EXAMINER

2/9/05